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Application No. 10/743,386  
Amendment dated  
Reply to Office Action of June 12, 2006

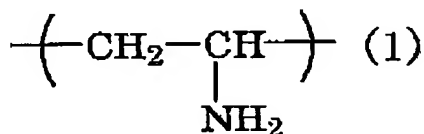
Docket No.: 21581-00313-US

AMENDMENTS TO THE CLAIMS

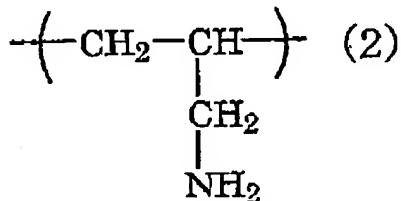
This listing of claims will replace all prior versions, and listings of claims in the application:

Please cancel claims 2, 8, 9, 12 and 15 without prejudice or disclaimer

1. (Currently Amended) A chemical conversion coating agent comprising:  
at least one kind selected from the group consisting of zirconium, titanium and hafnium;  
fluorine; and  
a water-soluble resin ,  
wherein said water-soluble resin has, in at least a part thereof, a constituent unit  
expressed by the chemical formula (1):



and/or the chemical formula (2):



and, wherein the water-soluble resin is a polyvinylamine resin or a polyallylamine resin.

2. (Canceled)
3. (Previously presented) The chemical conversion coating agent according to Claim 1,  
wherein the water-soluble resin has a molecular weight of 500 to 500000, and a content of the water-soluble resin in the chemical conversion coating agent is 5 to 5000 ppm.

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4. (Previously presented) The chemical conversion coating agent according to Claim 1, containing

1 to 5000 ppm of at least one kind of a chemical conversion reaction accelerator selected from the group consisting of nitrite ion, nitro group-containing compounds, hydroxylamine sulfate, persulfate ion, sulfite ion, hyposulfite ion, peroxides, iron (III) ion, citric acid iron compounds, bromate ion, perchlorinate ion, chlorate ion, chlorite ion, as well as ascorbic acid, citric acid, tartaric acid, malonic acid, succinic acid and salts thereof.

5. (Previously presented) The chemical conversion coating agent according to Claim 1,

wherein the at least one kind selected from the group consisting of zirconium, titanium and hafnium has a content of 20 to 10000 ppm in terms of metal, and the chemical conversion coating agent has a pH of 1.5 to 6.5.

6. (Withdrawn) A surface-treated metal comprising  
a chemical conversion coat formed by the chemical conversion coating agent according to Claim 1.

7. (Withdrawn) The surface-treated metal according to Claim 6,  
wherein the chemical conversion coat has a coat amount of 0.1 to 500 mg/m<sup>2</sup> in a total amount of metals contained in the chemical conversion coating agent.

8. (Canceled)

9. (Canceled)

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10. (Previously presented) The chemical conversion coating agent according to Claim 3, containing

1 to 5000 ppm of at least one kind of a chemical conversion reaction accelerator selected from the group consisting of nitrite ion, nitro group-containing compounds, hydroxylamine sulfate, persulfate ion, sulfite ion, hyposulfite ion, peroxides, iron (III) ion, citric acid iron compounds, bromate ion, perchlorinate ion, chlorate ion, chlorite ion, as well as ascorbic acid, citric acid, tartaric acid, malonic acid, succinic acid and salts thereof.

11. (Previously presented) The chemical conversion coating agent according to Claim 8, containing

1 to 5000 ppm of at least one kind of a chemical conversion reaction accelerator selected from the group consisting of nitrite ion, nitro group-containing compounds, hydroxylamine sulfate, persulfate ion, sulfite ion, hyposulfite ion, peroxides, iron (III) ion, citric acid iron compounds, bromate ion, perchlorinate ion, chlorate ion, chlorite ion, as well as ascorbic acid, citric acid, tartaric acid, malonic acid, succinic acid and salts thereof.

12. (Canceled)

13. (Previously presented) The chemical conversion coating agent according to Claim 3,

wherein the at least one kind selected from the group consisting of zirconium, titanium and hafnium has a content of 20 to 10000 ppm in terms of metal, and the chemical conversion coating agent has a pH of 1.5 to 6.5.

14. (Previously presented) The chemical conversion coating agent according to Claim 4,

wherein the at least one kind selected from the group consisting of zirconium, titanium and hafnium has a content of 20 to 10000 ppm in terms of metal, and the chemical conversion coating agent has a pH of 1.5 to 6.5.

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15. (Canceled)
16. (Withdrawn) A surface-treated metal comprising  
a chemical conversion coat formed by the chemical conversion coating agent according  
to Claim 3.
17. (Withdrawn) A surface-treated metal comprising  
a chemical conversion coat formed by the chemical conversion coating agent according  
to Claim 4.
18. (Withdrawn) A surface-treated metal comprising  
a chemical conversion coat formed by the chemical conversion coating agent according  
to Claim 5.
19. (Previously presented) The chemical conversion coating agent according to Claim  
9,  
wherein the at least one kind selected from the group consisting of zirconium, titanium  
and hafnium has a content of 20 to 10000 ppm in terms of metal, and the chemical conversion  
coating agent has a pH of 1.5 to 6.5.
20. (Previously presented) The chemical conversion coating agent according to Claim  
10,  
wherein the at least one kind selected from the group consisting of zirconium, titanium  
and hafnium has a content of 20 to 10000 ppm in terms of metal, and the chemical conversion  
coating agent has a pH of 1.5 to 6.5.
21. (New) The chemical conversion coating agent according to claim 1,  
wherein a polyvinylamine resin or a polyallylamine resin has a molecular weight  
of 500 to 500000.

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22. (New) The chemical conversion coating agent according to claim 1, wherein the water-soluble resin is a polyvinylamine resin having a molecular weight of 500 to 500000.

23. (New) The chemical conversion coating agent according to claim 1, wherein the water-soluble resin is a polyallylamine resin.